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25X1

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11 June 1959

MEMORANDUM FOR: THE RECORD

SUBJECT : Trip Report, [redacted] 25X1

1. Time and Place: 8 June at [redacted] New York, New York. 25X1

2. Those in Attendance:

[redacted] 25X1

3. Discussion:

P-227 - Transistorized Wire Analyzer

The main purpose of this meeting was the acceptance testing and preliminary evaluation of the first model of the analyzer. Tests were made at the contractor to verify the operating characteristics of the unit. The findings of these tests and other specifications to the unit are attached.

Approval for the assembly of three additional units was granted to the contractor. Two changes will be made to the next units. These are:

(a) DC volts output will be increased from 250 volts to 500 volts.

(b) Complete shielding will be done to the power supply package.

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Subject : Trip Report, [redacted] 25X1
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It is anticipated these three units will be available in July 1959. The first unit was hand carried by the undersigned to Washington and tests are presently being conducted prior to its shipment overseas on 22 June 1959. This first unit will undergo approximately six weeks of operational testing by a member of the Office of Security.

P-277 - Production Contract

The production of the 30 units (AC power, tube version) for the Office of Security and 10 units for TSS/ASD is nearing completion. Acceptance tests were conducted on five units. These five units were to be shipped from the contractor on June 9, 1959. Four units remain to be built under this contract and acceptance tests are planned for the week of 29 June.

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TRANSISTORIZED WIRE ANALYZER

Tentative Specifications

1. The transistorized wire analyzer is basically a combination of the following main items:

   (a) Wide range oscillator
   (b) Electronic voltmeter (AC)
   (c) Variable AC-DC power supply
   (d) DC voltmeter
   (e) AC-DC milliammeter
   (f) Audio amplifier
   (g) Battery charger

2. The tentative specifications for the units are:

   (a) Oscillator

      1. Frequency Range - 8 cps to 800 KC in 5 ranges
      2. Output - 2.5 volt rms across 600 ohms
         ± 1 DB to 300 KC
         ± 2 DB to 800 KC
      3. Distortion - Less than 10% for any frequency at full rated output
      4. Stability - ± 0.5% for ambient temperature range 0 to + 50°C

   (b) Electronic AC Voltmeter

      1. Range - 0.001 to 300 volts rms (volts full scale) in 12 ranges
      2. Sensitivity - 1 millivolt full scale (lowest range)
      3. Frequency Response - ± 1 DB 8 cps to 800 KC (dependent on range)
      4. Input Impedance - 10 megaohm. (dependent on range)
      5. Accuracy - Within 2% of full scale

   (c) Variable AC-DC Power Supply

      1. Voltage Output - 0 to 250 volt AC or DC
      2. AC Frequency - 60 cps.
      3. AC Waveshape - Square wave output
      4. Power Capability - 10 watts minimum for low impedance load.

   (d) AC-DC Milliammeter

      1. Range - 0-50 ma

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2. Input - AC or DC

(e) Audio Amplifier

1. Overall gain - 110 db
2. Frequency Response - 100 cps. to 10 KC +1, -3 db with 0db ref at 1000cps.
3. Input impedance - 1000 ohm
4. Phone Output - high Z, crystal

(f) Batteries & Charger

1. Battery type - Sealed nickel-cadmium
2. Rating - 12 volt at 500 mah
   6 volt at 1750 mah
3. Charging Input Voltage - 110/220 volt AC 50/60 cycle
4. Overall charging time* - 20 hours (from complete discharge)
5. No. of charges possible - approximately 5000

* Charging circuit may be on indefinitely with no damage occuring to the batteries.

3. In addition to the above components, a function is provided on the analyzer whereby a high level audio output is possible. The specifications for this feature are:

(a) Audio Output Frequencies - 10 cps. - 20 KC

(b) Output Voltage - 10 to 20 volt rms across 600 ohm

(c) Distortion - 20 to 40%

4. General Characteristics

(a) Operating time - Electronics - 25 hours (before charging batteries) Power Supply - $\frac{1}{2}$ hour continuous.

(b) Weight - Approximately 20 pounds

(c) Size - 14 x $5\frac{1}{2}$ x $10\frac{1}{2}$ inches

(d) Test leads - Self contained

(e) Charging cable - same as test leads

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5. Battery Test - Test switch places load across 500 mah battery to draw approximately 100 ma. Indicated on DC voltmeter.

1750 mah battery tested by varying output potentiometer of AC-DC power supply & observing deflection of DC voltmeter.

6. Function Controls - Push buttons to establish internal function & connections.

Rotary switch to connect function to load.

7. OFF switch - Automatically depressed when lid is closed.

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